

IN THE CLAIMS:

This listing of the claims replaces all prior versions and listings of the claims. Please amend claims 14 and 15 and cancel claims 3, 4, 18 and 19 as follows:

1 Claim 1. (previously presented) Method for generating persistent
2 annotations of multimedia content, comprising one or more repetitions
3 of the following steps:
4 actively selecting examples of multimedia content to be annotated
5 by a user, wherein the examples of multimedia content are selected
6 based on at least one criterion for achieving a maximal disambiguation
7 result such that only those examples which are most ambiguous are
8 selected;
9 accepting input annotations from said user for said selected
10 examples;
11 propagating said input annotations to other instances of
12 multimedia content; and
13 storing said input annotations and said propagated annotations.

1 Claim 2. (original) The method of claim 1, wherein the step of
2 actively selecting is performed using a selection technique selected
3 from the group consisting of: deterministic and probabilistic.

1 Claims 3 and 4 (canceled)

1 Claim 5. (previously presented) The method of claim 1, wherein
2 an optimization criterion for active selection includes one or more
3 criteria selected from the group consisting of: information measures
4 and confidence.

1 Claim 6. (original) The method of claim 1, wherein the
2 multimedia content comprises one or more types selected from the group
3 consisting of: images, audio, video, graphics, text, multimedia, Web
4 pages, time series data, surveillance data, sensor data, relational
5 data, and XML data.

1 Claim 7. (original) The method of claim 1, wherein the input
2 annotations are created by a user with reference to a vocabulary.

1 Claim 8. (original) The method of claim 7, wherein the
2 vocabulary contains one or more items selected from the group
3 consisting of: terms, concepts, labels, and annotations.

1 Claim 9. (original) The method of claim 1, wherein the process
2 of creating input annotations by the user involves multimodal
3 interaction with the user using graphical, textual, and/or speech
4 interface.

1 Claim 10. (original) The method of claim 1, wherein the input
2 annotations are created by means of steps selected from the group
3 consisting of: creating new annotations, deleting existing annotations,
4 rejecting proposed annotations, and modifying annotations.

1 Claim 11. (original) The method of claim 7, wherein the
2 vocabulary is adaptively or dynamically organized and/or limited by the
3 system or the user.

1 Claim 12. (original) The method of claim 9, wherein the
2 multimodal interaction involves speech recognition, gaze detection,
3 finger pointing, expression detection, and/or effective computing
4 methods for sensing a user's state.

1 Claim 13. (original) The method of claim 1, wherein the
2 determination of the propagation of annotations is made
3 deterministically or probabilistically and on the use of models for
4 each annotation or for joint annotations.

1 Claim 14. (currently amended) The method of claim ~~2~~ 13, wherein
2 the models are created or learned automatically or semi-automatically
3 and/or are updated adaptively from interaction with the user.

1 Claim 15. (currently amended) The method of claim ~~2~~ 13, wherein
2 the models are based on nearest neighbor voting or variants, parametric
3 or statistical models, expert systems, rule-based systems, or hybrid
4 techniques.

1 Claim 16. (previously presented) System for generating
2 persistent annotations of multimedia content, comprising:
3 means for actively selecting examples of multimedia content to be
4 annotated by a user, wherein the examples of multimedia content are
5 selected based on at least one criterion for achieving a maximal
6 disambiguation result such that only those examples which are most
7 ambiguous are selected;
8 means for accepting input annotations from said user for said
9 selected examples;

10 means for propagating said input annotations to other instances
11 of multimedia content; and
12 means for storing said input annotations and said propagated
13 annotations.

1 Claim 17. (original) The system of claim 16 wherein the means
2 for actively selecting uses a selection technique selected from the
3 group consisting of: deterministic and probabilistic.

1 Claims 18 and 19 (canceled)

1 Claim 20. (previously presented) The system of claim 16, wherein
2 an optimization criterion for active selection includes one or more
3 criteria selected from the group consisting of: information measures
4 and confidence.

1 Claim 21. (original) The system of claim 16, wherein the
2 multimedia content comprises one or more types selected from the group
3 consisting of: images, audio, video, graphics, text, multimedia, Web
4 pages, time series data, surveillance data, sensor data, relational
5 data, and XML data.

1 Claim 22. (previously presented) A computer program product in a
2 computer readable medium for generating persistent annotations of
3 multimedia content, the computer program product comprising
4 instructions for performing one or more repetitions of the following
5 steps:

6 actively selecting of examples of multimedia content to be
7 annotated by a user, wherein the examples of multimedia content are
8 selected based on at least one criterion for achieving a maximal
9 disambiguation result such that only those examples which are most
10 ambiguous are selected;

11 accepting input annotations from said user for said selected
12 examples;

13 propagating said input annotations to other instances of
14 multimedia content; and

15 storing said input annotations and said propagated annotations.

1 Claim 23. (previously presented) The method of claim 1, wherein
2 the at least one criterion includes an ambiguity level of the selected
3 examples.

1 Claim 24. (previously presented) The method of claim 1, wherein
2 the at least one criterion includes a confidence level of the selected
3 examples, the confidence level being inversely proportional to a
4 distance of a new feature of the selected examples from a separating
5 hyperplane in an induced higher dimensional feature space.

1 Claim 25. (previously presented) The system of claim 16, wherein
2 the at least one criterion includes an ambiguity level of the selected
3 examples.

1 Claim 26. (previously presented) The system of claim 16, wherein
2 the at least one criterion includes a confidence level of the selected
3 examples, the confidence level being inversely proportional to a
4 distance of a new feature of the selected examples from a separating
5 hyperplane in an induced higher dimensional feature space.

1 Claim 27. (previously presented) The computer program product of
2 claim 22, wherein the at least one criterion includes an ambiguity
3 level of the selected examples.

1 Claim 28. (previously presented) The computer program product of
2 claim 22, wherein the at least one criterion includes a confidence
3 level of the selected examples, the confidence level being inversely
4 proportional to a distance of a new feature of the selected examples
5 from a separating hyperplane in an induced higher dimensional feature
6 space.

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